

# **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



# code-A-Site:

A System for Inventory of  
Dispersed Recreational Sites in  
Roaded Areas, Back Country,  
and Wilderness

John C. Hendee  
Roger N. Clark  
Mack L. Hogans  
Dan Wood  
Russell W. Koch

PACIFIC NORTHWEST FOREST AND RANGE EXPERIMENT STATION  
U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
PORTLAND, OREGON

## About the Authors

John C. Hendee, Roger N. Clark, and Mack L. Hogans are recreation research project leader, research social scientist, and research forester, respectively, Pacific Northwest Forest and Range Experiment Station, Forest Service, U.S. Department of Agriculture.

During this research, Dan Wood and Russell W. Koch were graduate research assistants at the College of Forest Resources, University of Washington, Seattle. Dan Wood is now recreation planner, Bureau of Land Management, U.S. Department of the Interior, Canon City, Colorado.

The use of trade, firm, or corporation names in this publication is for the information and convenience of the reader. Such use does not constitute an official endorsement or approval by the U.S. Department of Agriculture of any product or service to the exclusion of others which may be suitable.

2001  
**CODE-A-SITE: A SYSTEM FOR INVENTORY  
OF DISPERSED RECREATIONAL SITES IN  
ROADED AREAS, BACK COUNTRY, AND WILDERNESS //**

**Reference Abstract**

Hendee, John C., Roger N. Clark, Mack L. Hogans, Dan Wood, and Russell W. Koch.

1976. Code-A-Site: A system for inventory of dispersed recreational sites in roaded areas, back country, and wilderness. USDA For. Serv. Res. Pap. PNW-209, 33 p., illus. Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.

Code-A-Site is a system for inventorying dispersed recreation sites that are established by users along forest roads, in back country, or in wilderness. The system uses edge-punch cards and needle-sorting methods for recording, storing, and retrieving basic site information such as location, characteristics, available resources, activities, and impacts.

**KEYWORDS:** Recreation, recording methods (data), dispersed recreation, inventory, carrying capacity, wilderness, environmental impacts.

**RESEARCH SUMMARY**

**Research Paper PNW-209**

**1976**

Code-A-Site is a system for inventorying dispersed recreation sites on forest roads, in back country, or wilderness. Dispersed sites in these settings have usually been established by impromptu use of recreationists but are important to management since they are the focal point for considerable recreation activity. Code-A-Site uses edge-punch cards for recording and storing basic information about dispersed sites for subsequent retrieval as needed for planning, management, and research purposes. Use of edge-punch cards and needle-sorting methods facilitates easy summary and analysis of data at field levels. Code-A-Site is designed for field use but provides opportunity for transfer of data to centralized computer storage and retrieval systems if desired.

## Contents

	Page
PART 1. AN INTRODUCTION TO CODE-A-SITE . . . . .	1
THE NEED FOR CAMPSITE INFORMATION . . . . .	1
RELATIONSHIP OF CODE-A-SITE TO OTHER INVENTORY SYSTEMS . . . . .	2
POTENTIAL USE OF CODE-A-SITE DATA . . . . .	4
APPLYING CODE-A-SITE . . . . .	8
Nature of the Job . . . . .	9
Basic Steps in a Code-A-Site Inventory . . . . .	10
Sources of Inventory Data . . . . .	11
Level of Measurement . . . . .	12
FIELD TEST AREAS . . . . .	12
Forest Roads . . . . .	13
Roadless Areas . . . . .	14
PART 2. CODEBOOK--INSTRUCTIONS FOR APPLYING CODE-A-SITE . . . . .	17
INTRODUCTION. . . . .	17
Coding Tips . . . . .	17
Use of Maps . . . . .	17
Use of Photographs . . . . .	18
USING THE SYSTEM . . . . .	18
INSTRUCTIONS FOR CODING THE FRONT OF THE CODE-A-SITE CARD . . . . .	18
INSTRUCTIONS FOR CODING THE BACK OF THE CODE-A-SITE CARD. . . . .	31
LITERATURE CITED. . . . .	32

## PART 1. AN INTRODUCTION TO CODE-A-SITE

### The Need for Campsite Information

The management of any natural resource depends on adequate information about key variables. This is as true for the recreation resource as it is for timber, forage, water, wildlife, or scenery. Recreational sites, whether established through design and planning by managers or by impromptu use by forest visitors, are a focal point for recreational use and related environmental and social impacts<sup>1/</sup> (Brown and Schomaker 1974, McCurdy and Hartman 1974). Much recreational activity focuses about the site--eating, working, playing, and camping overnight.<sup>2/</sup> The location of sites determines where recreational impacts will concentrate--and the facilities and other attributes of the site are a strong influence on the activities that will take place. Thus, inventory data about the number, character, and location of recreational sites may be useful for dispersed recreational planning and management and for research on their use.



*Dispersed camping on roadless forest land takes place in numerous impromptu campsites established by the public. Code-A-Site is a system for inventorying, storing, and retrieving information about such sites. (Courtesy Mack L. Hogans, personal photograph)*

---

<sup>1/</sup> Robert E. Pfister and Robert E. Frenkel. Dec. 1974. Field investigations of river use within the wild river area of the Rogue River, Oregon. Interim report submitted to Oregon Marine Board.

<sup>2/</sup> A study of use at roadless high lakes indicates that 64 percent of nontrail time is spent in camp and 20 percent of the remaining time is spent at the adjacent (lake) attraction. See John C. Hendee, Roger N. Clark, and Thomas E. Dailey (1974) "Fishing and Other Recreation Behavior at Roadless High-Mountain Lakes: Some Implications for Resource Management." Unpublished paper presented to American Fisheries Society annual meeting, Honolulu, Hawaii, 27 p., mimeogr. Available from the authors, 4507 University Way N.E., Seattle, Wash. 98105. Other studies indicating the large proportion of time spent at campsites are reported by Alden (1965) and King (1965).

Dispersed recreation is now receiving more attention by managers. Lloyd and Fischer (1972) indicate it is the fastest growing recreation use in the National Forests; logic would indicate similar land is likewise affected. In roaded forest areas, dispersed recreation is a major means to the realization of multiple use values from lands incurring heavy timber harvest (Hendee 1974).

This paper describes Code-A-Site, a system for inventorying dispersed recreation sites along forest roads, in back country, and wilderness; it also discusses storage of this basic information for subsequent retrieval and use for planning, management, and research purposes. Part 2 is a codebook of instructions for collecting site information in the field.

Code-A-Site is proposed as a continuing inventory system enabling managers to monitor changes in sites and the creation of new sites over time. The system consists of (1) codebook guidelines for recording basic information about the recreational site--its location, facilities, natural attributes, impacts, etc., and (2) printed edge-punch cards on which the information can be stored for subsequent retrieval by needle-sorting methods. The use of edge-punch cards and needle-sorting methods is a well-established method for handling data; this system is fully operational at field levels where computer skills and equipment may not exist. However, there is potential for computers to store and retrieve Code-A-Site data or to tie the data into other computerized inventory systems.

## Relationship of Code-A-Site to Other Inventory Systems

Code-A-Site is related to some objectives and capabilities of other inventory systems. It is related to the Forest Service's "Recreation Information Management System" (RIM), which is used to describe opportunities for recreation (USDA Forest Service 1968, 1969-74) and sample their use, primarily for computerized summaries of statistics at National Forest, regional, and national levels. Code-A-Site differs from RIM in several ways. Code-A-Site uses edge-punch cards to facilitate local field use. Code-A-Site focuses on opportunities for dispersed recreation, most of which are impromptu sites established by visitors rather than by the planning and design of managers. These sites are common on forest roads and in wilderness and back country and are not generally included in the RIM system. RIM recognizes some road occupancy spots that are heavily used and have been accorded official status by signs and garbage collection. But RIM does not inventory the many impromptu sites in dispersed areas that have no facilities but which are nevertheless a focal point for recreational use. However, information collected by Code-A-Site could be directly incorporated into RIM if desired.

The Total Resource Inventory system (TRI) of Region 6 of the U.S. Forest Service might also incorporate Code-A-Site data (USDA Forest Service 1960-74). The TRI system is a comprehensive compilation of resource data keyed to geographic location by legal description.



*Dispersed recreational sites, though not officially recognized by the managing agencies, are a focal point for a variety of activities. (Courtesy Mack L. Hogans, personal photograph)*

The National Forest Recreation Survey (NFRS), begun in 1959, bears some relationship to Code-A-Site. The NFRS was a systematic inventory by the Forest Service of all "existing" and "potential" developed outdoor recreation sites including location, suitable activities, access, ecological data, and judgments about site qualities. In field tests we found that some sites, originally identified by NFRS but never officially developed, had become established by impromptu recreational use and turned up in our Code-A-Site inventory.

The Bureau of Land Management's (U.S. Department of the Interior) extensive phase inventory, "Recreation Inventory System" (RIS), is similar in many respects to the Forest Service RIM system (U.S. Department of the Interior, Bureau of Land Management 1972). However, RIS is not a computer-oriented process; it relies basically on forms, files, and overlays for storing information on recreational resources. Code-A-Site data could easily fit into this broad system.

There may be other resource inventory systems that are related to Code-A-Site. However, our review of existing systems indicates that *Code-A-Site fills a need of managers at this time for an easy-to-use system for inventory and retrieval of information about dispersed recreation sites.* The system is designed to provide *basic site-oriented descriptive information at whatever level of specificity is desired by on-the-ground managers.* This information can be entered then, if desired, into any of the broader centralized systems such as RIM or RIS when they are extended to cover dispersed settings. Code-A-Site has sufficient flexibility to allow incorporation of special symbols to tie it to other systems.

## Potential Use of Code-A-Site Data

With Code-A-Site data, managers, planners, and researchers will be able to answer many questions about the current status of dispersed sites and the potential effects of future use and management on the opportunities which are available. Following are some sample questions which seem basic to dispersed recreation management, planning, and research and can be answered with information summarized from Code-A-Site inventories.

1. How many and what kind of dispersed recreational sites exist on a particular road system, in back country, or in a wilderness unit? (With this data managers can evaluate the potential impact of road or trail closure on established recreational use.)
2. What is the overnight capacity of the area without forcing development of additional impromptu campsites? (Carrying capacity considerations require this data.)
3. What proportion of sites have sustained different degrees of environmental impact? (Managers might want to carefully inspect sites that are identified in the inventory as having been heavily impacted.)
4. What are the locations of sites that offer particular kinds of experiences? for example, for solitude, large parties, different activities such as motorbike riding, fishing, or berrypicking. (This may be useful for responding to recreationists' requests for information about where they might find certain kinds of sites.)



*Receptionists at Ranger Districts are often asked by the public about camping and recreational opportunities. Code-A-Site data can help receptionists direct visitors to the kinds of opportunity they desire. Here a Mount Baker-Snoqualmie National Forest receptionist uses Code-A-Site data to inform a recreationist about a dispersed site. (Courtesy Mack L. Hogans, personal photograph)*

5. Which sites have shortages of critical resources for different uses; e.g., water, firewood, forage, tent space? (Alternative sites may be needed.)

6. Which sites have management problems or need work? Where are they, and what is the problem? This is essential information for managers' work plans. There is an obvious danger here of overresponse--notations that, if followed, would "upgrade" or close every site, thus changing the opportunities the area affords. On the other hand, prevailing management direction and philosophy in the administrative unit govern these decisions--Code-A-Site merely provides a tool to help the decisionmaker gather information on dispersed sites, including an inventory of work deemed necessary on each site to protect resources or serve users.



*Many dispersed recreationists prefer clearcut settings because of the access afforded by spur roads and the more abundant sunshine, berries, firewood, open vistas, trailbike opportunities, and other attractions not always present in heavy forest. (Courtesy Mack L. Hogans, personal photograph)*

7. What proportion of the sites fall within certain standards that might be established to control capacity, quality of experience, or environmental and social impacts? (a) Proximity to road and trail; sight, sound, and distance from other sites, water, toilet facilities, etc. (b) Ecological setting such as elevation, exposure, vegetation type (micro and macro), and shading.



*Shelterwood harvest and salvage logging provide recreational opportunities in a more natural setting. Natural barriers limit use and provide solitude and privacy. (Courtesy Mack L. Hogans, personal photograph)*

8. What sites are attracting most use and least use? What are the common characteristics of the overused and underused sites?<sup>3/</sup> This is important information for identifying potentially new sites and relocating old campsites. For example, if an old site is closed, a new, equally attractive site may need to be established. The environmental impact may be doubled if both the new site and the old one are used.

9. What changes occur at the sites over time? Another use of Code-A-Site data is for monitoring over time (as opposed to inventory) changes in environmental impacts from recreational use. The Code-A-Site system explained in this publication relies solely on field judgments of environmental impacts which may not be precise enough for detailed

---

<sup>3/</sup> For studies of dispersed campsite selection and use, see Merriam et al. (1973) and Merriam and Smith (1975).

assessment of environmental impacts. However, extra space has been provided on the card which could be used for recording more detailed measurements of site impacts.<sup>4/</sup>



*One of the most important uses of Code-A-Site is for inventorying the number of campsites and their environmental impacts in Wilderness and back-country areas. This is basic planning information and can help determine the need for camping restrictions in areas where overuse is suspected.*

10. How much dispersed use occurs? Code-A-Site data may be useful for approximating the amount of recreational use in a dispersed area. The number of impromptu sites established by campers reflects the amount of recreational use as does evidence of site use; e.g., environmental impacts, firewood, and litter. Although this kind of evidence is not an adequate measure of use, in the absence of a formal sample it may be the best measure available (James 1968). Although management of dispersed areas requires more information on the amount and kind of use, a Code-A-Site inventory allows managers to systematically aggregate subjective field judgments about the frequency of site use, thereby providing one estimate of the amount of dispersed use. In one study of three dispersed road recreational areas, field estimates of site use made during Code-A-Site inventories compared favorably with observations of total site use over one summer.<sup>5/</sup> But caution should be used in basing total use estimates on such data because the same study indicated that from 58 to 83 percent of the use at these dispersed road recreational areas consisted of day use, which may not be reflected in evidence at campsites.

---

<sup>4/</sup> In one case the National Park Service designed a special edge-punch card very similar to Code-A-Site for recording and aggregating quantitative information about human impacts at back country dispersed sites (Bruce B. Morehead, 1975, "Management Studies of Human Impact," summary of 1974 progress, 9 p., mimeogr.; available from author at Olympic National Park, Port Angeles, Wash. 98362). The Park Service study collected much more detailed information than called for in this Code-A-Site inventory system as their purpose was to study human impact phenomena.

<sup>5/</sup> Hendee, John C., Mack L. Hogans, and Russell W. Koch. Dispersed recreation on three forest road systems in Washington and Oregon: first year data. In preparation for publication, Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.

11. Where are sites located? Code-A-Site data can be plotted on maps to visually display any concentrations of sites, whose land they are located on, and the general pattern of site establishment. (This information can be useful in determining management responsibilities, possibly in share cost negotiations, planning fire patrol routes to maximize campsite contacts, and general land use planning.)



*Code-A-Site information about the location, characteristics, impacts, and use of dispersed recreational sites is useful for planning and managing dispersed use and its coordination with other resources; e.g., fire patrol, fish stocking, road maintenance, timber harvest, wildlife management. (Courtesy Mack L. Hogans, personal photograph)*

## Applying Code-A-Site

Code-A-Site uses edge-punch cards and needle-sorting techniques to systematize the recording and handling of inventory data where use of computers is not feasible or desired. These are well-established techniques for data storage and retrieval.<sup>6/</sup> They have proved useful for easy but systematic handling of large numbers of public inputs in the recently developed CODINVOLVE system (Clark et al. 1974). The use of edge-punch card, needle-sorting technology is less complex, requires less training and equipment, and is more flexible than computers. These attributes could facilitate use of Code-A-Site information in resource analysis, planning, and management at local field levels. And, as previously indicated, where large volumes of data must be handled or the information is needed for other purposes, application of computer techniques is easily accomplished.

---

<sup>6/</sup> For basic information on edge-punch card technology, see Automated Business Systems (1969).

## NATURE OF THE JOB

A Code-A-Site inventory consists of two types of jobs--fieldwork and office work. But before beginning data collection, the data user (manager) must decide what kind of information is needed and how much. Thus, with clear objectives in mind, he may review specific items in the Code-A-Site coding instructions (part 2 of this paper). In this manner, additions or deletions in the coding categories can be made to provide the most efficient use of money and manpower in gathering data. The key is to make the system fit local conditions and needs--only information that will be used should be collected. Flexibility has been built into the system by providing extra space on the Code-A-Site card so that it can be used without modification if a manager wants to gather additional, special information.

Generally, except for the addition of extensive data for a specific study, the basic Code-A-Site card has sufficient flexibility. Use of the basic, preprinted Code-A-Site cards will result in substantially lower card costs and greater comparability of inventory data between management units. The January 1976 cost of Code-A-Site cards ranged from 31 cents each for an order of 1,000 cards to 7 cents each for 50,000 cards. In a 1975 consolidated order for 20,000 cards, Region 6 of the U.S. Forest Service paid about 10 cents per card.

Fieldwork.--Personnel who routinely travel through the areas to be inventoried are often able to fit campsites inventory into their other duties. This approach has been successfully used in several pilot study areas and works well if the inventory job is spread over a sufficient time period. In other cases, someone might be specifically assigned to complete the entire job more quickly than may be possible by persons with other responsibilities.



*Field personnel who routinely travel forest roads can inventory dispersed sites with the Code-A-Site system as they perform other duties. (Courtesy Mack L. Hogans, personal photograph)*



*Inventorizing an individual site with Code-A-Site usually takes only 10 to 20 minutes. (Courtesy Mack L. Hogans, personal photograph)*

The fieldwork entails locating each site, plotting it on a base map, and entering desired information on the Code-A-Site card while at the site. In-the-field coding can usually be completed in less than 10 minutes per site after a person learns the system. Onsite time can be minimized if only the necessary information is completed in the field and the rest done in the office.

Office work.--Coding can be completed in the office. This includes adding code numbers for locating the site, writing a general description of the site, adding any management notes, preparing the cards for punching, and punching them. After the necessary office work has been completed, cards and base map should be stored for easy retrieval of information about all sites or any particular site.

## **BASIC STEPS IN A CODE-A-SITE INVENTORY**

For a Code-A-Site inventory, experience suggests the following procedure:

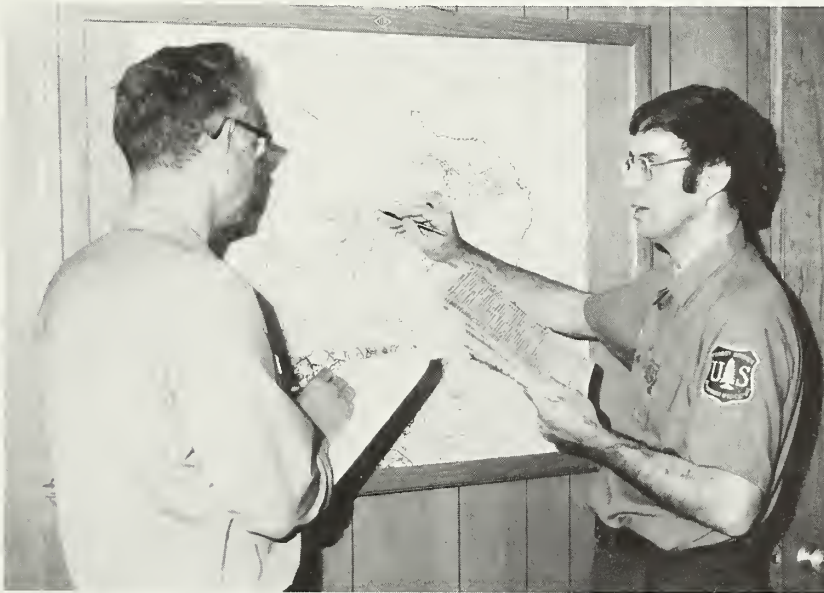
1. Identify sites. On forest roads, this can be done by systematically driving on the roads and adjoining spurs and assigning, on a map, a tentative code number to all sites located. Usually sites can be identified by the presence of a fire circle. Sometimes a busy weekend is the best time to locate sites as some may be missed unless campers are there. For example, in one case, an initial midweek attempt to identify sites by an experienced local person revealed 40 sites in one area. Followup during peak weekend use revealed a total of 120 sites.

In roadless areas, known sites can be approximately located on a map. Back country or wilderness patrolmen can then systematically cover the vicinities where there are known concentrations of sites and can code other sites discovered during their travel. Location of sites should not be an office job. Our experience indicates serious mistakes and inaccuracies can result unless a systematic procedure is employed on the ground; generally, there are more sites than were expected.

2. Collect field data on Code-A-Site cards. Responsible personnel should visit each site to make necessary judgments for coding all desired data for each site on a separate edge-punch card following codebook instructions (part 2 of this report). Experience shows that familiarity in field data collection will reduce the time required to less than 10 minutes per site. Initial attempts will take longer until the field person memorizes the coding instructions.

3. Complete and punch cards in the office. Some site data, such as legal description and road number, can be completed in the office. When all desired data have been entered, the edge of the cards must be punched where they have been coded so it will be possible to sort them. A special punch for this can be purchased. About 1 minute per card is needed to punch holes for all possible data that might be collected.

4. Analyze data. When the manager has decided what data summaries are desired, they can be compiled by needle-sorting procedures. For example, he might want to identify all sites with "extreme" physical impacts from use, sites requiring work or maintenance, or a list of sites with space for four or more vehicles. An infinite number of summaries is possible but we have found managers most interested in the basic issues and questions listed earlier.



*Code-A-Site inventorying of data about dispersed sites can be plotted on maps or summarized in reports as an aid to land use planning, decisionmaking, or work scheduling.  
(Courtesy Mack L. Hogans, personal photograph)*

## SOURCES OF INVENTORY DATA

Many types of data can be stored on the Code-A-Site card. Sources of this information may include: manager observations and ideas for the site, personal experiences in the area, and information from contacts with users. Thus, Code-A-Site provides for objective and subjective

assessments of site characteristics, use, and management and user needs. In addition, information about any one site can be compiled over an extended period of time which will allow for an assessment of change in the condition or use of the site.

Onsite observation.--Most of the data on the card can be derived by onsite inspection and observations; e.g., site description, location, facilities, and impact. Also, watching users can help the person inventorying make better judgments for items such as the principal activity on the site and frequency of use.

Personal experience.--Items such as frequency of use can best be determined by observation of the site over time. However, personnel who work or recreate in an area are often able to judge frequency of use in lieu of more complete data or can provide other useful data.

Users.--Asking users about frequency of use, activity on the site, etc., during routine visitor contacts is another source of information. Users often have many years of experience in the area and can provide information useful to the manager.

## LEVEL OF MEASUREMENT

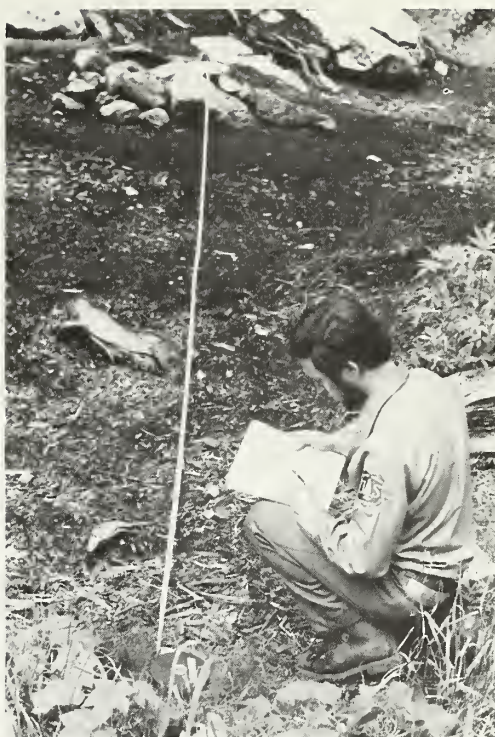
In many cases, there may be technical information underlying the subjective field judgments coded into the system; e.g., extent of environmental impact. One might be disturbed about whether or not such judgments can be made with sufficient accuracy and reliability. We are operating under the assumption that such judgments are made every day by managers. Our objective is to systematize the handling of these subjective field judgments and other more easily measured site attributes, by bringing together in the coding instructions criteria upon which such judgments can be based. The guidelines set forth in the codebook have been subjected to expert technical review and have been field tested. Code-A-Site is a system for handling state-of-the-art field judgments; additional basic research and development are obviously needed to develop better criteria for judging such things as environmental impacts and experience levels.

There is an extensive literature about ecological and recreational topics that might pertain to recreational sites. Many of these have been summarized in bibliographies by Stankey and Lime (1973) and James (1972). The coding criteria used in Code-A-Site should not be regarded as a substitute for basic information reported in the literature. On the other hand, the application of a system such as Code-A-Site may surface technical deficiencies in subjective field judgments and thus help focus needed research on them.

## Field Test Areas

Code-A-Site was field tested during 1974 and 1975 at several locations including the following for which illustrative data summaries are included. A complete printout of Code-A-Site data for the Greenwater, Taneum-Manastash and Upper Clackamas dispersed road recreation areas is included in Hendee et al. (see footnote 5, p. 7).

Code-A-Site provides for field judgments of environmental impacts and more detailed measurements of impacts if desired. Data from detailed measurements can be useful in monitoring and assessing the aggregate impact of recreational use over time. Here, a Glacier Peak Wilderness patrolman on the Darrington District, Mount Baker-Snoqualmie National Forest, takes transect measurements of the impacted campsite area.



## FOREST ROADS

Mount Baker-Snoqualmie National Forest in Washington--White River Ranger District.--1. *Greenwater Drainage*: A heavily clearcut drainage with active logging, about 1 hour from Seattle, Washington. It adjoins Highway 410, a major route to Mount Rainier National Park and eastern Washington via Yakima. The area includes 68 miles (109.4 kilometers) of logging roads and spurs, some private land, and a joint share-cost maintenance of some roads with cooperating landowners. The Greenwater is a focal point for motorbike use, berrypicking, camping, hunting, and general recreation.

2. *Huckleberry Creek*: A side drainage of the White River with approximately 36 miles (57.9 kilometers) of timber sale roads and active logging. Like the Greenwater, it lies about 1 hour from Seattle, adjoining Highway 410. The drainage features a trail to Mount Rainier National Park from the road end, Sun Top Lookout, a nonglacial stream, and dense Douglas-fir forest interspersed with clearcuts.

Mount Baker-Snoqualmie National Forest--North Bend Ranger District.--1. *Middle Fork of Snoqualmie River*: North of Interstate 90, the main route between Seattle and eastern Washington State, the Middle Fork lies 1 hour from Seattle and contains 30 miles (48.3 kilometers) of timber sale roads plus some spurs. Much of the lower drainage was logged off years ago, but the upper reaches beyond the road's end lead to spectacular roadless high country in the proposed Alpine Lakes Wilderness. The drainage has much day use, three major trail heads,

a portable guard station, and one 24-unit campground. Camping, hiking, and mountain climbing in the adjacent roadless areas are popular, as is fishing in the river.

2. *North Fork of Snoqualmie River*: Located farther north on Interstate 90, 18 miles (29 kilometers) from the town of North Bend, Washington. This drainage terminates in the proposed Alpine Lakes Wilderness beyond the road's end. The drainage includes 15 miles (24 kilometers) of road on National Forest land and, like the Middle Fork, features hiking, climbing, fishing, camping, and two major trail heads.<sup>7/</sup>

## ROADLESS AREAS

Deschutes National Forest, Oregon--Bend Ranger District.--The Green Lakes vicinity of the Three Sisters Wilderness, one of the most heavily used locations in classified Wilderness in the Pacific Northwest. The area inventoried included 10 miles (16.9 kilometers) of trail.<sup>8/</sup>

Wenatchee National Forest, Washington--Naches Ranger District.--A 27-mile (43-kilometer) stretch of the Pacific Crest Trail on both north and south sides of Chinook Pass (Highway 410) from junction 2000/951 (Cougar Valley Trail) to Fish Lake. The southern portion lies in the proposed Cougar Lakes Wilderness study area.<sup>9/</sup>

Table 1 is a sample summary of data collected in the summer of 1974 with the Code-A-Site inventory system.

---

<sup>7/</sup> A more detailed report is contained in Mack L. Hogans, "Public Use of Forest Roads Pilot Study, Summer 1974, Mount Baker-Snoqualmie National Forest: White River and North Bend Ranger Districts," unpublished 1974 report available from the author, 4507 University Way N.E., Seattle, Wash. 98105.

<sup>8/</sup> Detailed information is included in Dan Wood, "Public Use of Forest Roads Pilot Study--Deschutes National Forest, Bend and Sisters Ranger Districts," unpublished 1974 report available from author, 4507 University Way N.E., Seattle, Wash. 98105.

<sup>9/</sup> Detailed information is included in Russ Koch and John Hendee, "Code-A-Site Inventory of Dispersed Sites on Pacific Crest Trail--Naches Ranger District," unpublished 1975 report available from authors, 4507 University Way N.E., Seattle, Wash. 98105.

Table 1--Summarized data about dispersed sites collected in the summer of 1974 with Code-A-Site <sup>1/</sup>

Road or trail	Miles	Number of sites inventoried	Density (sites per mile)	Site origin		Extreme or heavy environmental <sup>4/</sup> impact	Maximum number of spaces available at sites	Estimated 1-night capacity, PAOT <sup>5/</sup>
				Site origin				
				Official <sup>2/</sup>	Impromptu <sup>3/</sup>			
- - Number of sites - -								
Road:								
Greenwater drainage	68	128	1.9	1	127	50	392	1,568
Huckleberry Creek	36	40	1.1	1	39	10	135	540
North Fork, Snoqualmie River	15	35	2.3	0	35	4	66	264
Middle Fork, Snoqualmie River	30	75	2.5	1	74	12	255	1,020
Total or average	149	278	1.9	3	275	76	848	3,392
Trail:								
Green Lakes	10	80	8.0	0	80	32	177	708
Pacific Crest	27	79	2.9	10	69	17	79	315
Total or average	37	159	4.3	10	149	49	256	1,023

<sup>1/</sup> In addition to the data shown here, the inventory yielded a map with location of each site plotted and extensive information on site resources such as water, firewood, available activities, attractions, site descriptions, and notations about needed work or problems at the site.

<sup>2/</sup> Established by agency.

<sup>3/</sup> Established by campers.

<sup>4/</sup> See the Code-A-Site codebook for criteria used to judge categories of environmental impact.

<sup>5/</sup> People at one time--assumes 4 persons per party and all tent and vehicle spaces at each site occupied. The capacity would be much less under 1-party-per-site assumption.



## **PART 2. CODEBOOK--INSTRUCTIONS FOR APPLYING CODE-A-SITE**

### **Introduction**

This codebook is a guide for entering recreational site information on the edge-punch cards. Each category found on the card is explained. Categories begin in the upper left corner on the front of the card and proceed counterclockwise around the edges.

When sites are coded, any notations for a particular coding category may be made in the space provided in the center of the card. Such notations should be clearly marked as to which category they pertain; if a notation pertains to more than one category, each category should be identified.

Specific methods and adaptations of Code-A-Site to local situations depend on local managers. The following suggestions come from our own 2 years of field testing and the experience of several managers who have applied Code-A-Site.

### **CODING TIPS**

The key to useful coding of any data is a clear idea of its use. The entire card need not be completed if all the information is not useful or desired. Local managers should decide what data they want or need and restrict data collection to those items. Managers should feel free to redefine coding rules to better serve their needs. It is important, however, that all coders in any particular area use the same rules and that a record of the coding rules be kept so the data can be interpreted correctly by future users.

The Code-A-Site edge-punch cards have additional writing space and a special section that can be used for recording whatever information managers think is important--whether or not it is called for in coding instructions.

Expanding the site numbering system can be useful for quickly locating a site on a map or in the field. Letter codes such as "N" or "S" for north or south can be added to a site's regular number without disrupting the system. For example, number "15S" means site number 15 on the south side of the road or trail. This is especially helpful in congested areas.

Color coding is also a good method for quick sorting and organizing of the inventory cards. A combination of blue, red, green, etc., slashes across the tops of all cards could facilitate sorting.

### **USE OF MAPS**

Maps can be useful for displaying inventoried sites and for summarizing information. When sites are clustered, a map with a large enough scale to distinguish between individual sites is necessary. In heavily used dispersed areas, a 4-inch-scale map may be necessary, but in remote

areas a 1-inch-scale map provide sufficient space to indicate site locations.

When precise topographic location of a campsite is desired, a large-scale contour map is needed.

How the maps will be used must also be considered; e.g., semipermanent office maps or portable maps for field use by patrolmen. Sometimes two maps may be needed for different purposes.

## USE OF PHOTOGRAPHS

In some cases, photographs of the sites may be desired to aid in describing the site or for giving information to users on the types of sites in an area. Photos can also be useful when impact and use over time are appraised.

## Using the System

The following instructions indicate the location and type of information to be included on the Code-A-Site cards. Figures 1 and 2 show the front and back of the card before any information has been entered; figures 3 and 4 show a coded and punched card. Code-A-Site users should refer to these figures for examples of how the card is used.

## Instructions for Coding the Front of the Code-A-Site Card

### I. DESCRIPTIVE INFORMATION (1 through 10)

1. Type of area. Check the general category of the area in which the site is located.
  - a. Dispersed roaded.
  - b. Back country or roadless area.
  - c. Wilderness (legal).
  - d. Other (specify).
2. Access. Check whether the site is accessible all year round or seasonal only. If access is seasonal, specify when and why; e.g., "from mid-June to the end of Sept., snow during winter."

Check kind of access to the site:

3. Roads. *Main road*--paved or gravel main line logging road (designate road surface).  
*Spur road*--secondary road off a main line, easily passable by passenger car when dry.  
*Informal (car) road*--primitive road but still normally passable by 2-wheel drive vehicle; e.g., some abandoned skid roads.

CHECK (X) APPROPRIATE CATEGORIES																																
DISPERSED	TYPE OF AREA		PLEASE READ CODE BOOK PRIOR TO USING THIS CARD										CODE - A - SITE (DISPERSED RECREATION SITE INVENTORY) U S D A FOREST SERVICE PACIFIC NORTHWEST FOREST & RANGE EXPERIMENT STATION 5-75 210923X MCBEE SYSTEMS SEATTLE, WA										EXTRA CODING FOR LOCAL USE									
BACK COUNTRY	①		KEY # USE THIS AREA WHEN SPECIFICS ARE REQUIRED OR TO RECORD ADDITIONAL DATA										B A D C E H G J I L K M P O																			
WILDERNESS	②												FREQUENCY OF USE																			
OTHER (SPECIFY →)													CONSTANT																			
YEAR ROUND													FREQUENT																			
SEASONAL (SPECIFY →)													MODERATE																			
MAIN ROAD													SLIGHT																			
SPUR ROAD	ROADS (SPECIFY NAME OR NO IF ANY →)												INFREQUENT																			
INFORMAL ROAD																																
4 WHEEL DRIVE ROAD																																
OTHER (SPECIFY →)																																
MAIN TRAIL	TRAILS (SPECIFY NAME OR NO IF ANY →)																															
SPUR TRAIL																																
PATH																																
CROSS COUNTRY																																
OTHER (SPECIFY →)																																
0 - 50'	DISTANCE FROM TRAIL OR ROAD												ELEVATION (26)																			
51 - 100'													2001-3000 1000-2000																			
101 - 200'													4001-5000 3001-4000																			
OVER 200'													6001-7000 5001-6000																			
TURNOUT	TYPE OF SITE (CHECK ONE FOR ROADED AREA)												8001-9000 7001-8000																			
TRAIL HEAD													10,001-+ 9001-10,000																			
ADJACENT ROAD													EXPOSURE (25)																			
OTHER (SPECIFY →)													NE NORTH																			
TENT SUITABILITY ← YES □ NO	WHY? (7) TENTS												NW EAST																			
1 2 NO. OF TENT SPACES													SE SOUTH																			
3 4													SW WEST																			
VEHICLE SUITABILITY ← YES □ NO	WHY? (8) VEHICLES												CROWN COVER (24)																			
1 2 NO. OF VEHICLE SPACES													26-50% 1-25%																			
3 4													76-100% 51-75%																			
OFFICIAL	SITE ORIGIN & CURRENT STATUS												(23) VEGETATION SPECIFY ON BACK NO GROUND COVER																			
IMPROMPTU													GROUND COVER (22)																			
UNIMPROVED													26-50% 1-25%																			
MINOR (SPECIFY →) IMPROVEMENTS													76-100% 51-75%																			
MAJOR (SPECIFY →) IMPROVEMENTS													IMPACT OF PREVIOUS USE (21)																			
0 NO. IN VIEW													EXTREME																			
1 - 3													HEAVY																			
4 - 5													MODERATE																			
6 +													LIGHT																			
0 NO. IN 1/2 MILE													SPECIAL PROBLEMS FOR USER (19) NO □ YES →																			
1 - 3													NO FACILITIES																			
4 - 5													GARBAGE CANS																			
6 +													INFORMATIONAL SIGNS																			
													TABLES																			
													FIREPLACE																			
													TOILETS (18) NONE																			
													PIT																			
													PIT STRUCTURE																			
													SEALED VAULT																			
													OTHER FACILITIES (17)																			
													1																			
													2																			
													3																			
													1																			
													2																			
													3																			
													4																			
													5																			
													6																			
													7																			
													8																			
													9																			
													10																			
													11																			
													12																			
													13																			
													14																			
													15																			
													16																			
													17																			
													18																			
													19																			
													20																			
													21																			
													22																			
													23																			
													24																			
													25																			
													26																			
													27																			
													28																			
													29																			
													30																			
													31																			
													32																			
													33																			
													34																			
													35																			
													36																			
													37																			
													38																			
													39																			
													40																			
													41																			
													42																			
													43																			
													44																			
													45																			
													46																			
													47																			
													48																			
													49																			
													50																			
													51																			
													52																			
													53																			
													54																			
													55																			
													56																			
													57																			
													58																			
													59																			
													60																			
													61																			
													62																			
													63																			
													64																			
													65																			
													66																			
													67																			
													68																			
													69																			
													70																			
													71																			
													72																			
													73																			
													74																			
													75																			
													76																			
													77																			
													78																			
													79																			
													80																			
													81																			
													82																			
													83																			
													84																			
													85																			
													86																			
													87																			
													88																			
													89																			
													90																			
													91																			
													92																			
													93																			
													94																			
													95																			
													96																			
													97																			
													98																			
													99																			
													100																			

Figure 1.--Front of a Code-A-Site inventory card.



CHECK (X) APPROPRIATE CATEGORIES

PLEASE READ CODE BOOK PRIOR TO USING THIS CARD		CODE - A - SITE (DISPERSED RECREATION SITE INVENTORY) U S D A FOREST SERVICE PACIFIC NORTHWEST FOREST & RANGE EXPERIMENT STATION	
<div> <div>DISPERSED</div> <div>BACK COUNTRY</div> <div>WILDERNESS</div> <div>OTHER (SPECIFY →)</div> <div>YEAR ROUND</div> <div>SEASONAL (SPECIFY →)</div> <div>MAIN ROAD</div> <div>SPUR ROAD</div> <div>INFORMAL ROAD</div> <div>4 WHEEL DRIVE ROAD</div> <div>OTHER (SPECIFY →)</div> <div>MAIN TRAIL</div> <div>SPUR TRAIL</div> <div>PATH</div> <div>CROSS COUNTRY</div> <div>OTHER (SPECIFY →)</div> <div>0 - 50'</div> <div>51 - 100'</div> <div>101 - 200'</div> <div>OVER 200'</div> <div>TURNOUT</div> <div>TRAIL HEAD</div> <div>ADJACENT ROAD</div> <div>OTHER (SPECIFY →)</div> <div>TENT SUITABILITY</div> <div>VEHICLE SUITABILITY</div> <div>OFFICIAL</div> <div>IMPROPTU</div> <div>UNIMPROVED</div> <div>MINOR (SPECIFY →)</div> <div>IMPROVEMENTS</div> <div>MAJOR (SPECIFY →)</div> <div>IMPROVEMENTS</div> <div>0</div> <div>1 - 3</div> <div>4 - 5</div> <div>6 +</div> <div>0</div> <div>1 - 3</div> <div>4 - 5</div> <div>6 +</div> </div> <div> <div>TYPE OF AREA</div> <div>ROADS (SPECIFY NAME OR NO. IF ANY →)</div> <div>TRAILS (SPECIFY NAME OR NO. IF ANY →)</div> <div>DISTANCE FROM TRAIL OR ROAD</div> <div>TYPE OF SITE (CHECK ONE FOR ROADED AREA)</div> <div>WHY?</div> <div>WHY?</div> <div>NO. OF TENT SPACES</div> <div>NO. OF VEHICLE SPACES</div> <div>SITE ORIGIN &amp; CURRENT STATUS</div> <div>NO. IN VIEW</div> <div>NO. IN 1/2 MILE</div> </div>	<div> <div>KEY #</div> <div>USE THIS AREA WHEN SPECIFICS ARE REQUIRED OR TO RECORD ADDITIONAL DATA</div> <div>2 Snowed in from mid-June thru Sept.</div> <div>4 Green Lake trail # 223</div> <div>8 Wilderness area prohibits vehicles</div> <div>9 Fire prevention sign &amp; homemade bench</div> <div>11 Water source is Green Lake. Located 75 ft. SW of the site</div> <div>12 35 ft. NW of site</div> <div>13 Grass meadow next to site will be a fire hazard in dry weather</div> <div>14 meadow grasses 100 ft East</div> <div>15 (1) Huckleberries (2) Good fishing</div> <div>18 Toilet located in grove of trees 100 ft. NW of site</div> <div>20 There are many "risk" trees next to site which pose a threat to campers in high wind</div> </div> <div> <div>ADDITIONAL NOTES ON REVERSE</div> </div>	<div> <div>EXTRA CODING FOR LOCAL USE</div> <div>28</div> <div>CONSTANT</div> <div>FREQUENT</div> <div>MODERATE</div> <div>SLIGHT</div> <div>INFREQUENT</div> <div>UNDER 1000</div> <div>2001-3000</div> <div>1000-2000</div> <div>4001-5000</div> <div>3001-4000</div> <div>6001-7000</div> <div>5001-6000</div> <div>8001-9000</div> <div>7001-8000</div> <div>10,001+</div> <div>9001-10,000</div> <div>NE</div> <div>NORTH</div> <div>NW</div> <div>EAST</div> <div>SE</div> <div>SOUTH</div> <div>SW</div> <div>WEST</div> <div>CROWN COVER</div> <div>NONE</div> <div>26-50%</div> <div>1-25%</div> <div>76-100%</div> <div>51-75%</div> <div>VEGETATION SPECIFY ON BACK</div> <div>NO GROUND COVER</div> <div>GROUND COVER</div> <div>26-50%</div> <div>1-25%</div> <div>76-100%</div> <div>51-75%</div> <div>IMPACT OF PREVIOUS USE</div> <div>EXTREME</div> <div>HEAVY</div> <div>MODERATE</div> <div>LIGHT</div> <div>SPECIAL PROBLEMS FOR USER (← SPECIFY →) NO <input type="checkbox"/> YES <input checked="" type="checkbox"/></div> <div>NO FACILITIES</div> <div>GARBAGE CANS</div> <div>INFORMATIONAL SIGNS</div> <div>TABLES</div> <div>FIREPLACE</div> <div>TOILETS</div> <div>NONE</div> <div>PIT</div> <div>PIT STRUCTURE</div> <div>SEALED VAULT</div> <div>OTHER FACILITIES (SPECIFY)</div> </div>	
<div> <div>VEHICLE SUITABILITY</div> <div>VEHICLES</div> <div>OFFICIAL</div> <div>IMPROPTU</div> <div>UNIMPROVED</div> <div>MINOR (SPECIFY →)</div> <div>IMPROVEMENTS</div> <div>MAJOR (SPECIFY →)</div> <div>IMPROVEMENTS</div> <div>0</div> <div>1 - 3</div> <div>4 - 5</div> <div>6 +</div> <div>0</div> <div>1 - 3</div> <div>4 - 5</div> <div>6 +</div> </div> <div> <div>NO. IN VIEW</div> <div>NO. IN 1/2 MILE</div> </div>		<div> <div>SCHEMATIC DRAWING</div> <div>USE BOX TO MAKE A ROUGH SKETCH OF SITE</div> <div>INDICATE POSSIBLE TENT (X) AND VEHICLE (O) SPACES</div> <div>INDICATE NORTH</div> </div> <div> <div>Trailhead</div> <div>N</div> <div>Toe Nob</div> <div>264</div> <div>GREEN LAKE</div> </div>	<div> <div>II SITE RESOURCES</div> <div>12 (SPECIFY LOCATION) ↑</div> <div>FORAGE (14) (SPECIFY TYPE &amp; LOCATION) ↑</div> <div>OTHER RESOURCES (15) (SPECIFY IN COMMENTS SECTION) ↑</div> <div>III AREA ATTRactions &amp; OPPORTUNITIES (16)</div> <div>OTHER FACILITIES (17)</div> </div>

Figure 3.--Front of a coded and punched Code-A-Site card.

TENS		UNITS				TENS		UNITS				TENS		UNITS				TENS		UNITS																					
2	1	0	7	4	2	1	2	0	7	4	2	1	2	0	7	4	2	1	0	7	4	2	1	0	7	4	2	1	0	7	4	2	1								
X		FOREST CODE				DISTRICT CODE				MGMT. UNIT				SITE NUMBER																											
REGION		6				FOREST				Deschutes				DISTRICT				Bend - 18																							
TOWNSHIP		175				RANGE				8 E				SECTION				4				DOT				MGMT UNIT				Green Lake #10				SITE NO.				264			
																						DATE CODED				8/29/74				CODED BY				Jim Smith							
GENERAL DESCRIPTION OF SITE		Site is a 2 tent-space area utilizing a common rock fire ring. Site is adjacent to Green Lake in a sparse stand of true fir. There are other sites in the general area. Has outstanding view.																																							
MANAGEMENT NOTES																																									
FUTURE MANAGEMENT RECOMMENDATIONS AND SITE COSTS		1 sealed vault. Price: \$ 150 1 fire prevention sign. : <u>35</u> 185																																							
KEY #		USE THIS AREA WHEN SPECIFICS ARE REQUIRED OR TO RECORD ADDITIONAL DATA																																							
(23) ON SITE VEGETATION		Site is located in sparse stands of true firs and scattered D. firs and lodgepole pine - Ground cover is lupine and pine grass and meadow grass																																							
(23) OFF SITE VEGETATION		Douglas - fir is major timber type - Ground cover consists of salal devil's club. Some scattered Western Red cedar also.																																							

*4-wheel drive road*--primitive road, passable only by 4-wheel drive vehicle.

*Other*--(specify).

4. Trails. *Main trail*--main line trails which normally are assigned identifying names and numbers and receive regular maintenance.

*Spur trail*--secondary trail connecting a main trail to some attraction such as a nearby lake. Trail is normally shown on maps and is maintained.

*Path*--informal trail established by use rather than planned construction. Trail is likely not to be on maps and is not normally maintained.

*Cross country*--no existing trail; maybe a general travel route less defined than even a "path."

*Other*--(specify).

NOTE: Nomenclature for trails and roads can easily be adapted to the local area. The terminology used here describes access from a user perspective--i.e., from easy to difficult access--local managers may want to use other terms such as primary, secondary, tertiary, or long term, short term. The changes can be made by noting: "our main road = your primary road" or "our main trail = your trunk trail." The printed card can usually be used without modification, or appropriate terminology can be written in.

5. Distance from trail or road. Check the appropriate box. Specify distance and direction from trail to center of site in the shaded box provided; e.g., 53 ft. SW. Use the space provided in the middle of the card if needed for additional comments.
6. Type (location) of site (for roaded areas only). Check the category which most closely describes the type of site. If the "Other" category is chosen, describe the site in the space provided in the middle of the card.
- Turnout site*--sites in wide area of the road, used by cars to stop for recreational purposes--parking, camping, viewing scenery, etc.
  - Trail head site*--sites at parking area for access to a trail system.
  - Adjacent road site*--sites adjacent to road but not in one of the above categories; e.g., campsite 50 feet off road on informal spur.
  - Other*--any site which does not fit into the above categories. Use the space for details.

7. Tents. *Suitability*--check yes or no to indicate if the site is suitable for tents. Use the space provided to explain why or why not.

*Number*--check the number of tent spaces available. If more than four, write the number in the shaded box.

8. Vehicles. *Suitability*--check yes or no on the card to indicate if the site is suitable for recreational vehicles. Use the space for explanation.

*Number*--check the number of vehicle spaces available. If more than four, give maximum number.

NOTE: Available spaces can best be determined by visiting the site during periods of heavy use.

9. Site origin & current status. Check the appropriate box.

a. *Origin* (check one):

- (1) Official--planned, designed, and constructed by the managing agency.
- (2) Impromptu--sites established by campers.

b. *Current status* (check one):

- (1) Unimproved--no improvements or facilities provided.
- (2) Minor improvements (specify)--some minor improvements. Site usually not shown on maps.
- (3) Major improvements (specify)--major improvements such as signs, tables, fireplaces, etc. Site usually shown on maps. (Some dispersed sites gradually grow into official sites as facilities are added.)

10. Other sites:

- a. *Number of sites within view*--check the category which indicates the number of sites within view from the site being inventoried. If more than six are within view, specify the maximum number in the shaded box. (This number may change as use increases in the area and new sites are established.)
- b. *Number of sites within one-half mile*--(can be filled out in the office from a map). Check the box which indicates the number of sites within one-half mile from the site being inventoried. Specify the exact number in the shaded box. (This number may change as use increases in the area and new sites are established.)

## II. SITE RESOURCES (11 through 15)

This section is for appraising the resources of the area available for campers' use. (As these resources may change over time, it will be necessary to review their availability in the future.)

Definitions:

1. Onsite--within 200 feet from edge of site.
2. Offsite--over 200 feet from edge of site.

11. Water: *Availability*--onsite--check yes or no;  
offsite--check yes or no.

**Location**--use the center of the card to specify distance and direction of water source from the campsite.

*Source*--check all choices that apply as a source of water to the site: (a) lake, (b) stream, (c) spring.

*Continuity*--check whether the water source is year-round or seasonal. If seasonal, specify when it is available.

12. Firewood: *Availability*--onsite--check yes or no;  
offsite--check yes or no.

*Location*--use the center of the card to specify direction and distance of firewood from the campsite.

*Source*--check that which most closely describes the firewood source:

- a. Natural debris--dead limbs and down trees which normally occur near the site.
- b. Slash--debris left by logging or other man-caused activity.
- c. Other--any other source such as "old burn" or "bug kill patch" (specify).

*Amount*--check the category which most closely describes the amount of firewood:

- Abundant--large concentration of firewood; several years' supply even with heavy use; e.g., result of storm damage, windthrow, logging.
- Available--firewood plentiful but could be depleted through heavy use over a few years.
- Scarce--firewood will soon be exhausted.
- None--only live vegetation, esthetic snags, or nothing available.

13. Fire hazard: Check yes or no. Comments describing the hazard may be placed in the middle of the card. For example, "during periods of extremely dry weather, grass meadow next to the site will be an extreme fire hazard."



- a. *None*--no toilet facilities.
- b. *Pit*--an open pit toilet, possibly a latrine, near a site.  
Include open Wallowa-type box toilets.
- c. *Pit structure*--pit toilet but with enclosed outhouse.
- d. *Sealed vault*--a sealed vault or chemical toilet.

Location--specify the distance and direction of toilet from site.

19. Specify number and kind of facilities available:

- a. No facilities.
- b. Garbage cans.
- c. Information signs.
- d. Tables.
- e. Fireplaces.

- V. 20. SPECIAL PROBLEMS FOR USER: Check yes or no for special problems; e.g., mosquitoes, hazardous trees, etc. Clearly specify the hazard in the space in the middle of the card. For example, "this site is located in a very old stand of Douglas-fir trees. Many are 'risk' trees and pose a threat to campers, especially in windstorms."

VI. ECOLOGICAL INFORMATION (21 through 28)

21. Impact of previous use. This category calls for subjective field judgments of use impacts. The information will help to appraise environmental impact, rehabilitation potential, and carrying capacity of the site. Relative impact of use is based on specific indicators. Use these indicators to appraise and describe the site's condition:

To what extent is ground vegetation impacted or the site denuded? Are there any exposed roots, dead trees, or visitor use trails radiating from the site? Is there any erosion?

Use-impact categories. Using the above indicators, make an overall judgment about the physical impact at the site. (Check appropriate choice on the card.)

- a. *Extreme impact*--all previous ground vegetation gone; many roots exposed. Erosion beginning--further deterioration will continue even without use. Impact of site has spread to surrounding area. Soil is compacted and restricts new vegetation.
- b. *Heavy impact*--substantial impact but no continuing deterioration without use. Site would rehabilitate if not used. Most ground vegetation gone. Some roots exposed. Visual impact generally restricted to the site area. Visible trails radiate from the site. No permanent erosion.
- c. *Moderate impact*--some denuded spots in the ground cover but vegetation is relatively intact. No exposed roots and impact is limited to the immediate site.

d. *Light impact*--ground vegetation completely intact. Natural processes at the site may be somewhat retarded by use.

22. Ground cover: Check percentages most closely representing amount of ground cover at the site.

23. Vegetation: Indicate at this location if there is no ground cover. If ground cover is present, specify its nature on the back of the card:

Onsite (use back of card to record notes--figure 2, p. 20)--vegetation in the immediate area. A description of the major timber type and ground cover; e.g., "site located in a clearcut, regeneration is 15-year-old Douglas-fir averaging 10 feet. Ground cover consists of some salal in spots and some Oregon grape." Or "Site located in relatively pure subalpine fir stand, mixed age. Ground cover is sparse, but some lupine and pine grass may be found." There is no substitute for specific, measured ecological data, but the description should be sufficient to identify the plant communities involved. Information on the stand could include age, height, d.b.h., age distribution, and other information the manager may find useful.

Offsite (use back of card to record notes--figure 2, p. 20)--vegetation in the surrounding area. The objective is to provide enough descriptive information to correspond to standard vegetation classification such as vegetation zones and physiographic provinces as outlined in Franklin and Dyrness (1973). Describe major timber type and dominant ground cover; e.g., "coastal Douglas-fir is the major timber type with ground cover varying from devil's club to salal." Or "Mixed stands of larch and true firs with sparse ground cover due to rocky slope, but some lupine and other wildflowers where soil is present."

24. Crown cover: Check percentages most closely representing amount of crown cover at the site.

25. Exposure: Aspect to which the site is generally exposed; e.g., "site slopes toward the south" or "site exposed to the northeast."

26. Elevation: In feet to the nearest hundred (can be taken from topographic maps). Specify exact elevation in shaded portion of card.

27. Frequency of use (see figs. 1 and 3): Appraise how often the site is used by inspecting ecological impact and other evidence: fire ring, ashes, and debris; annual vegetation growth; litter; latrine; other signs of use; contacts with users of the site. Observations by patrolmen over the use season may provide the best judgment of use. If use varies by season, describe the nature of variation; e.g., infrequent use in summer but constant use during hunting season.

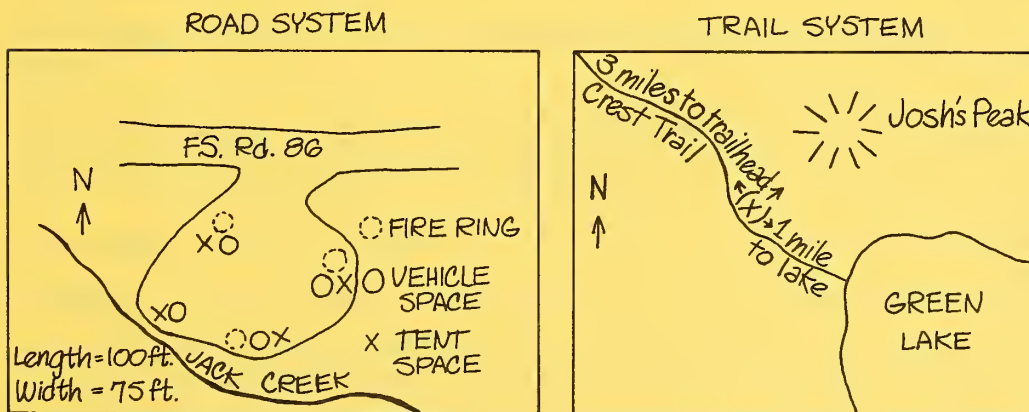
Use categories:

- a. *Constant*--always used on weekends during the season and frequently during the week.
- b. *Frequent*--used much of the time, almost always during heavy use periods such as "most weekends."
- c. *Moderate*--used about half the time during the season.
- d. *Slight*--used only a few times a season such as during heavy use periods.
- e. *Infrequent*--use is light; site may be used only once a year or not at all.

28. Extra coding for local use: This section of the card is reserved for additional data not prescribed for in Code-A-Site instructions, but which local managers might wish to collect. There are no criteria on how to use this space. It may be useful for recording more detailed information about the site in any category. The instructions for using this section must be developed by local managers.<sup>10/</sup>

VII. SCHEMATIC DRAWING (bottom center of card): Use this portion of the card for a schematic drawing of the site. This will add greatly to the site description. Also indicate on this map the possible location of tent (X) and vehicle (O) spaces. Specify dimensions of the site and its location with respect to roads, trails, and bodies of water.

Example:



<sup>10/</sup> See footnote 4, p. 7, for reference to manuals providing basic instructions for recording data on edge-punch cards.



# Instructions for Coding the Back of the Code-A-Site Card

The following information is to be included on the back of the card. Refer to figures 2 and 4 for an example of coding this information. Most items on the back of the card may be completed in the office.

Locational data: Directly under the holes at the top of the card, additional space for writing locational and other information is provided. The names (or number) of the Region, Forest, District, or management unit may be written in this space. These particular designations conform with the U.S. Forest Service nomenclature. They may be easily changed to conform with other agency nomenclature by writing in the appropriate designations.

Region: The administrative Region in which the site is located. Use standard agency code numbers.

Forest: The name of the National Forest, Park, or other management unit in which the site is located. Use standard agency code numbers.

District: The name of the Ranger District or local administrative unit in which the site is located. Use standard agency code numbers.

Management unit: This is simply a "catchall" term for the many ways Districts or local administrative units may be zoned or divided to facilitate local management. These are often Fire Management or Timber Management areas but could be any other division the administrator feels is appropriate. The management units often have names (e.g., "Buck Creek Fire Patrol") and need only be assigned a code number to be punched at the top of the card.

Site number: Indicate the code sequence number which was assigned to the site.

Legal description: Indicate the township, range, and section in which the site is located. Place a dot in the box provided to illustrate where the site is located in the section.

Date coded: Indicate the date on which the site was coded or inventoried.

Coded by: Place the name or initials of the person inventorying the site.

GENERAL DESCRIPTION OF THE SITE: Describe the site as you would to a camper. For example, "Heavily used site at the north edge of Square Lake. Located on a windy hill but has a good view of the lake. Good screening from other campsites."

MANAGEMENT NOTES: Use this space for notations or observations about the management of the site. It can be used to record possible work needs which the manager would want to know about. For example, recent slash or windfall may pose a fire hazard in heavily used areas.

No specific criteria are available for judgments relating to management of the site; management objectives will determine these. Beware of the tendency to recommend facilities or improvements or other management actions. Rather, concentrate on describing the situation. Managers can decide later what should be done when information about all sites is available.

FUTURE MANAGEMENT RECOMMENDATIONS AND SITE COSTS: This space is reserved for the manager to indicate anything he thinks should be done to the site in the future. A record of total costs invested at the site for such facilities as picnic tables, garbage cans, signs, toilets, and for other work can be useful to the agency. See facilities, items 17, 18, and 19, on the front of the card.

## LITERATURE CITED

Alden, Howard P.

1965. Characteristics and preferences of recreationists in selected northern Idaho State Parks. Univ. Idaho, For., Wildl. and Range Exp. Stn., No. 1, 2 p.

Automated Business Systems.

1969. McBee Keysort. Machines and methods instruction manual. 20 p., illus. Litton Bus. Syst., Inc., Carlstadt, N. J.

Brown, Perry J., and John Schomaker.

1974. Final report on criteria for wilderness campsites. Utah State Univ., Inst. Study Outdoor Recreation and Tourism, Suppl. No. 32 to 12-11-204-3, 50 p.

Clark, Roger N., George H. Stankey, and John C. Hendee.

1974. An introduction to CODINVOLVE: A system for analyzing, storing, and retrieving public input to resource decisions. USDA For. Serv. Res. Note PNW-223, 16 p., illus. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

Franklin, Jerry F., and C. T. Dyrness.

1973. Natural vegetation of Oregon and Washington. USDA For. Serv. Gen. Tech. Rep. PNW-8, 417 p., illus. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

Hendee, John C.

1974. Forestry's response to increased demand for commodity and amenity values. J. For. 72(1):771-774.

James, George A.

1972. Physical site management: An annotated bibliography. USDA For. Serv. Gen. Tech. Rep. NC-9, p. 67-82. North Cent. For. Exp. Stn., St. Paul, Minn.

James, George A., and Robert Henley.

1968. Sampling procedures for estimating mass and dispersed use on large areas. USDA For. Serv. Southeast. For. Exp. Stn., 15 p. Asheville, N.C.

King, David A.

1965. Characteristics for family camping using the Huron-Manistee National Forests. USDA For. Serv. Res. Pap. LS-19, 11 p., illus. Lake States For. Exp. Stn.

Lloyd, Duane R., and Virlis Fischer.

1972. Dispersed versus concentrated recreation as a forest policy. (Speech) 16 p. Paper presented to the Seventh World For. Congr., Buenos Aires, Argent.

McCurdy, Dwight R., and Neil S. Hartman.

1974. A resource inventory method to support land use plannings. South. Ill. Univ. Sch. Agric., Dep. For., Publ. No. 14, 43 p., illus.

Merriam, L. C., Jr., and C. K. Smith.

1975. Newly established campsites in the Boundary Waters Canoe Area. Restudy of selected sites - 1974. Minn. For. Res. Note No. 254, 4 p.

Merriam, L. C., C. K. Smith, D. E. Miller, and others.

1973. Newly developed campsites in the Boundary Waters Canoe Area--a study of 5 years' use. Univ. Minn. Agric. Exp. Stn., Bull. 511, 27 p.

Stankey, George H., and David W. Lime.

1973. Recreational carrying capacity: An annotated bibliography. USDA For. Serv., Intermt. For. and Range Exp. Stn., 45 p. Ogden, Utah.

U.S. Department of Agriculture, Forest Service.

- 1960-74. Total resource inventory (TRI). Forest Service handbook 2109.22. Reg. 6, Pac. Northwest Reg., Portland, Oreg.

U.S. Department of Agriculture, Forest Service.

1968. Recreation information management. A computer oriented system for the management of information about people, places, and things over periods of time. An in-Service training guide. USDA For. Serv., 127 p., illus.

U.S. Department of Agriculture, Forest Service.

- 1969-74. Forest Service handbook 2309.11 RIM handbook. USDA For. Serv., Washington, D.C.

U.S. Department of the Interior, Bureau of Land Management.

1972. Recreation inventory system. BLM Man. Sect. 6110. U.S. Dep. Inter., Bur. Land Manage., Washington, D.C.

\* \* \* \* \*



Hendee, John C., Roger N. Clark, Mack L. Hogans, Dan Wood and Russell W. Koch.  
1976. Code-A-Site: A system for inventory of dispersed recreational sites in roaded areas, back country, and wilderness. USDA For. Serv. Res. Pap. PNW-209, 33 p., illus. Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.

Code-A-Site is a system for inventorying dispersed recreation sites that are established by users along forest roads, in back country, or in wilderness. The system uses edge-punch cards and needle-sorting methods for recording, storing, and retrieving basic site information such as location, characteristics, available resources, activities, and impacts.

KEYWORDS: Recreation, recording methods (data), dispersed recreation, inventory, carrying capacity, wilderness, environmental impacts.

Hendee, John C., Roger N. Clark, Mack L. Hogans, Dan Wood and Russell W. Koch.  
1976. Code-A-Site: A system for inventory of dispersed recreational sites in roaded areas, back country, and wilderness. USDA For. Serv. Res. Pap. PNW-209, 33 p., illus. Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.

Code-A-Site is a system for inventorying dispersed recreation sites that are established by users along forest roads, in back country, or in wilderness. The system uses edge-punch cards and needle-sorting methods for recording, storing, and retrieving basic site information such as location, characteristics, available resources, activities, and impacts.

KEYWORDS: Recreation, recording methods (data), dispersed recreation, inventory, carrying capacity, wilderness, environmental impacts.

Hendee, John C., Roger N. Clark, Mack L. Hogans, Dan Wood and Russell W. Koch.  
1976. Code-A-Site: A system for inventory of dispersed recreational sites in roaded areas, back country, and wilderness. USDA For. Serv. Res. Pap. PNW-209, 33 p., illus. Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.

Code-A-Site is a system for inventorying dispersed recreation sites that are established by users along forest roads, in back country, or in wilderness. The system uses edge-punch cards and needle-sorting methods for recording, storing, and retrieving basic site information such as location, characteristics, available resources, activities, and impacts.

KEYWORDS: Recreation, recording methods (data), dispersed recreation, inventory, carrying capacity, wilderness, environmental impacts.

Hendee, John C., Roger N. Clark, Mack L. Hogans, Dan Wood and Russell W. Koch.  
1976. Code-A-Site: A system for inventory of dispersed recreational sites in roaded areas, back country, and wilderness. USDA For. Serv. Res. Pap. PNW-209, 33 p., illus. Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.

Code-A-Site is a system for inventorying dispersed recreation sites that are established by users along forest roads, in back country, or in wilderness. The system uses edge-punch cards and needle-sorting methods for recording, storing, and retrieving basic site information such as location, characteristics, available resources, activities, and impacts.

KEYWORDS: Recreation, recording methods (data), dispersed recreation, inventory, carrying capacity, wilderness, environmental impacts.



The mission of the PACIFIC NORTHWEST FOREST AND RANGE EXPERIMENT STATION is to provide the knowledge, technology, and alternatives for present and future protection, management, and use of forest, range, and related environments.

Within this overall mission, the Station conducts and stimulates research to facilitate and to accelerate progress toward the following goals:

1. Providing safe and efficient technology for inventory, protection, and use of resources.
2. Developing and evaluating alternative methods and levels of resource management.
3. Achieving optimum sustained resource productivity consistent with maintaining a high quality forest environment.

The area of research encompasses Oregon, Washington, Alaska, and, in some cases, California, Hawaii, the Western States, and the Nation. Results of the research are made available promptly. Project headquarters are at:

Fairbanks, Alaska	Portland, Oregon
Juneau, Alaska	Olympia, Washington
Bend, Oregon	Seattle, Washington
Corvallis, Oregon	Wenatchee, Washington
La Grande, Oregon	

*Mailing address: Pacific Northwest Forest and Range  
Experiment Station  
P.O. Box 3141  
Portland, Oregon 97208*

The FOREST SERVICE of the U.S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.

The U.S. Department of Agriculture is an Equal Opportunity Employer. Applicants for all Department programs will be given equal consideration without regard to race, color, sex or national origin.

U.S. DEPT. OF AGRICULTURE  
FOREST SERVICE

JUN 21 '77











